Remarks

Applicants respectfully request reconsideration of the present U.S. Patent application as amended herein. Claims 24-25 have been amended to correct clerical errors. No claims have been added or canceled. Thus, claims 1-25 are pending.

Drawing, Specification & Claims Corrections

Applicants thank the Examiner for the careful examination of the patent application and the identification of clerical errors.

In the drawings, FIG. 2 was corrected to include call out numbers identified in the text but missing from the drawing. In FIG. 4, duplicative callout 310 was corrected to 312. In FIG. 6, the duplicative callout 372 was corrected to 374, and the text of box 374 was corrected to comply with the specification description.

In the specification, at page 8, several incorrect callout references for NICs 1, 2 and 3 were corrected. On page 14, a missing reference to callout 374 was added. On page 15, terminology was updated to be consistent within the description.

In the claims, the clerical error in claim 25 noted by the Examiner was corrected.

These above-described amendments to drawings, figures and claims were directed to clerical errors; none introduced new matter.

35 USC §102

Claims 1-5, 8-12, 15-17, and 21-23 stand rejected under 35 USC §102(e) as being anticipated by Amdahl (U.S. Patent No. 6,253,334). Applicant traverses these

rejections as claimed embodiments recite limitations not taught or even suggested by the cited documents.

For example, claim 1 recites:

1. A method utilizing a team of network interfaces operating in adapter fault tolerance mode to provide primary and secondary use processing of data, comprising:

receiving data for processing by said team, said team having a primary network interface and at least one secondary network interface;

if said data is primary use processing, then processing and transmitting said data by the primary network interface; and

if said data is secondary use processing, then distributing processing of said data across said secondary network interfaces.

Claim 8 recites corresponding readable medium limitations.

As is well established, to make a prima facie rejection under 35 USC §102(e), the Office must provide a prior art document that includes each and every element and limitation of the rejected claim. If even a single limitation is not present in the cited document, then the Office has failed to make a proper rejection.

It is respectfully asserted that the cited portions of Amdahl patent do not suggest, teach, describe, or even appear to recognize the desirability of the recited primary and secondary use processing of data. As discussed in the specification, see, e.g., page 5 line 27 – page 6 line 8, and the FIG. 4 discussion starting at page 8 line 22, etc., in some disclosed and claimed embodiments, one adapter of a team of adapters can be used to provide services, such as encryption or other services, to another device. Secondary processing may also be distributed across a team of NICs. One exemplary embodiment of such loaning of functionality is discussed in detail with respect to FIG. 4.

While Amdahl does speak to teaming network interfaces, the portions of Amdahl relied on by the Office do not teach the secondary data uses as claimed. As taught by

Amdahl at col. 4 lines 8-15, the Amdahl MULTISPAN feature is simply a "fault detection and recovery" process in which for "each group of NICs, if there is a failure virtually on any component related to network traffic, the MULTISPAN process detects the interruption of the data flow and determines which NIC is no longer working. MULTISPAN directs traffic trough ***only the working NICs***" (emphasis added).

This simple failover mechanism is not what is claimed. In particular, this description by Amdahl of its MULTISPAN feature does not anticipate distributing secondary use data across a team, but if the data is primary use processing, then processing and transmitting said data by the primary network interface. The Action suggests in its ¶4 that a routing algorithm may operate with respect to data being primary or secondary; Applicant disagrees since the recited operations are more than simply a routing algorithm (see above-cited specification portions). Further, the Action fails to provide reference to a portion of Amdahl teaching the recited primary and secondary operations.

It is respectfully submitted the Office has therefore failed to establish a prima facie case under 35 USC §102. Of course, there are other bases on which claims 1 and 8 may be distinguished over Amdahl, and Applicant does not rely solely on the distinction above; however, the above discussion is believed to be more than sufficient to overcome the Office's rejection of claims 1 and 8. It is respectfully requested that the Office withdraw the rejection of these claims.

Independent claims 15 and 21 also recite using primary and secondary use processing and hence are allowable for the reasons discussed above for claim 1. However, these claims also recite "distributing processing of said data across all active

and failed network interfaces of said team." Use of failed NICs is not taught by Amdahl, and as indicated by the bolded/highlighted portion of Amdahl above, in describing the MULTISPAN architecture, Amdahl explicitly states its failed NICs are **not used** until they are once again operational. This is not what is claimed and hence Amdahl can not anticipate claims 8 and 21.

To facilitate prosecution, at this time only the independent claims have been directly addressed in the present response in order to focus examination thereon. Applicant submits that the dependent claims 2-7, 9-14, 16-20 and 22-25, while not discussed, nonetheless introduce elements further distinguishing these claims over the documents relied on by the Office. However, it is respectfully submitted these claims are patentable for at least the reason as depending from allowable base claims.

35 USC §103

Claims 6, 13, and 24 stand rejected under 35 USC §103(a) as being obvious over Amdahl in view of Asano (U.S. Patent No. 6,327,614). Claims 7, 14, 20 and 25 stand rejected under 35 USC §103(a) as being obvious over Amdahl in view of Rakavy (U.S. Patent No. 5,978,912). Claim 19 stands rejected under 35 USC §103(a) as being obvious over Amdahl in view of Asano and Rakavy.

Applicant traverses these rejections since as discussed above, the Amdahl MULTISPAN architecture can not anticipate, teach or suggest claimed embodiments, and in particular, does not teach the recited usage of primary and secondary use data. Regarding the claims depending from claims 8 and 15 in particular, the various

combination of these references can not teach the recited use of non-functioning NICs as Amdahl explicitly teaches away from using failed NICs.

However, while Applicant appreciates the detailed effort of the Action, the particular merits of these rejections are not being addressed at this time so as to focus prosecution on the independent claims. Applicant submits claims 6, 7, 13, 14, 20, 24 and 25 are allowable for at least the reason as depending from allowable base claims.

Conclusion

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims **1-25** are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,

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Appendix

Specification paragraph at page 8, lines 11-20:

Assume, for example, that NIC 1 [118] 116 has an on-board encryption ASIC, but NIC 2 [120] 118 and NIC 3 [122] 120 do not. As will be discussed in more detail below, in such a circumstance, encryption for NIC 2 [120] 118 and NIC 3 [122] 120 can be supported by routing encryption requests through NIC 1 **116** encryption hardware and then repackaging the resultant encrypted data for delivery to NIC 2 [120] 118 and/or NIC 3 [122] 120 by way of the virtual protocol stack **202**. That is, in one embodiment, network traffic to be encrypted would go from protocol stack **100**, to the intermediary **102**, to the virtual driver **204**, which communicates with the NIC 1 driver **104** to have NIC 1 **116** perform the encryption. The encrypted data is received by the virtual driver **204**, given to the virtual protocol stack **202**, which then re-sends the data for transmission by NIC 2 [120] 118 or NIC 3 [122] 120.

Specification paragraph at page 14, lines 7-14:

If, however, non-regular traffic is received, e.g., secondary use data packets, then these packets are delivered to the backup network interface members such that they are balanced **372** across all available unused team members. If **370** the primary network interface has available resources, however, to process encryption tasks, then the primary adapter interleaves 374 secondary task processing with its primary transmission and receipt of network traffic. Remaining task processing is balanced **372** across all available unused team members. It is expected that appropriate queuing strategies will be employed to keep all adapters busy.

Specification paragraph at page 15, lines 4-15:

FIG. 7 and the following discussion are intended to provide a brief, general description of a suitable computing environment in which portions of the invention may be implemented. An exemplary system for implementing the invention includes a computing device **400** having system bus **402** for coupling together various components within the computing device. The system bus may be any of several types of bus structures, such as PCI, AGP, VESA, etc. Typically, attached to the bus **402** are processors **404** such as Intel Pentium® processors, programmable gate arrays, etc., a memory **406** (e.g., RAM, ROM, NVRAM), computing-device readable storage-media **408**, a video interface **410**, input/output interface ports **412**, and a network interface. A modem **414** may provide an input and/or output data pathway, such as for user input/output, and may operate as a network interface in lieu of or in conjunction with other[s] network interfaces **416**.

Specification paragraph at page 15 lines 22 – page 16 line 4:

The exemplary computing device **400** can store and execute a number of program modules within the memory **406**, and [computer] <u>computing-device</u> readable <u>storage-</u>media **408**. The executable instructions may be presented in terms of algorithms and/or symbolic representations of operations on data bits within a computer memory, as such representation is commonly used by those skilled in data processing arts to most effectively convey the substance of their work to others skilled in the art. Here, and generally, an algorithm is conceived to be a self-consistent sequence of steps leading to a desired result. The steps are those requiring physical manipulations of physical quantities, and can take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated. Appropriate physical quantities of these signals are commonly referred to as bits, values, elements, symbols, characters, terms, numbers, or the like.